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A NEW GENUS OF THE SUBTRIBE GEOCHINA (COLEOPTERA: CURCULIONIDAE) FROM THE PHILIPPINES

A. A. Legalov^{1, 2)}

1) Institute of Systematic and Ecology of Animals, Siberian Branch, Russian Academy of Sciences, Frunze street-11, Novosibirsk 630091 Russia. E-mail: fossilweevils@gmail.com

2) Altai State University, Lenina-61, Barnaul 656049 Russia.

Summary. *Orientogeochus rheinheimeri gen. et sp. n.* is described and illustrated from Luzon (the Philippines). The new genus differs from the genus *Afrogeochus* in the toothed femora, rounded eyes, widely separated procoxal cavities, subapically inserted antennae and rostrum almost three times as long as the base, widened at the apex. A key to the genera of the subtribe Geochina and distribution map for species are given.

Key words: beetles, Curculionoidea, Molytinae, Phrynxini, new taxa, Luzon.

А. А. Легалов. Новый род подтрибы Geochina (Coleoptera: Curculionidae) с Филиппин // Дальневосточный энтомолог. 2021. N 425. C. 1-6.

Резюме. С Лусона (Филиппины) описаны новый род и вид *Orientogeochus rheinheimeri gen. et sp. n.* Новый род отличается от рода *Afrogeochus* бедрами с зубцами, округленными глазами, широко разделенными передними тазиками, субапикально прикрепленными усиками, и головотрубкой почти в три раза более широкой, чем ее ширина на основании, расширенной на вершине. Даны определительная таблица родов подтрибы Geochina и приведена карта распространения видов этой подтрибы.

INTRODUCTION

Geochina is a small group of specialized weevils that are miners in the dead leaves (May, 1992). Zimmerman (1994) suggested a name Geochini for this group among the subfamily Curculioninae, but did not describe it. Lyal (2014) transferred this group to the tribe Phrynxini of the subfamily Molytinae. Legalov (2020) described the subtribe Geochina in the tribe Phrynxini. The genus *Geochus* Broun, 1882 is known from New Zealand and *Afrogeochus* Rheinheimer, 1998 consists of species from Southern Africa (Broun, 1880; Rheinheimer, 1998, Alonso-Zarazaga & Lyal, 1999).

In this paper, the new genus *Orientogeochus* gen. n. with a new species from Luzon (the Philippines) is described. This is the first record of the tribe Phrynxini from the Oriental Region.

MATERIAL AND METHODS

Type specimens are kept in the ISEA – Institute of Systematic and Ecology of Animals (Novosibirsk, Russia). Descriptions, body measuring, and photographs were performed using the Zeiss Stemi 2000-C dissecting stereomicroscope. The terminology of weevil body is according to Lawrence *et al.* (2010).

TAXONOMY

Subfamily Molytinae Schoenherr, 1823

Tribe Phrynxini Kuschel, 1964

Subtribe Geochina Legalov, 2020

COMPOSITION. This subtribe consists of three genera and 29 species distributed in Southern Africa, Lord Howe Island, New Zealand and the Philippines (Fig. 5).

Key to genera of the subtribe Geochina

1. Tarsomere 5 absent. Funicle 7-segmented. New Zealand *Geochus* Broun, 1882
- Tarsomere 5 present. Funicle 6-segmented 2
2. Femora toothed. Eyes rounded. Procoxal cavities widely separated. Antennae inserted subapically. Rostrum almost three times as long as base, widened at apex. The Philippines *Orientogeochus* gen. n.
- Femora simple. Eyes transverse-oval. Procoxal cavities narrowly separated. Antennae inserted near rostrum middle. Rostrum two times as long as base, nor widened at apex. South Africa *Afrogeochus* Rheinheimer, 1998

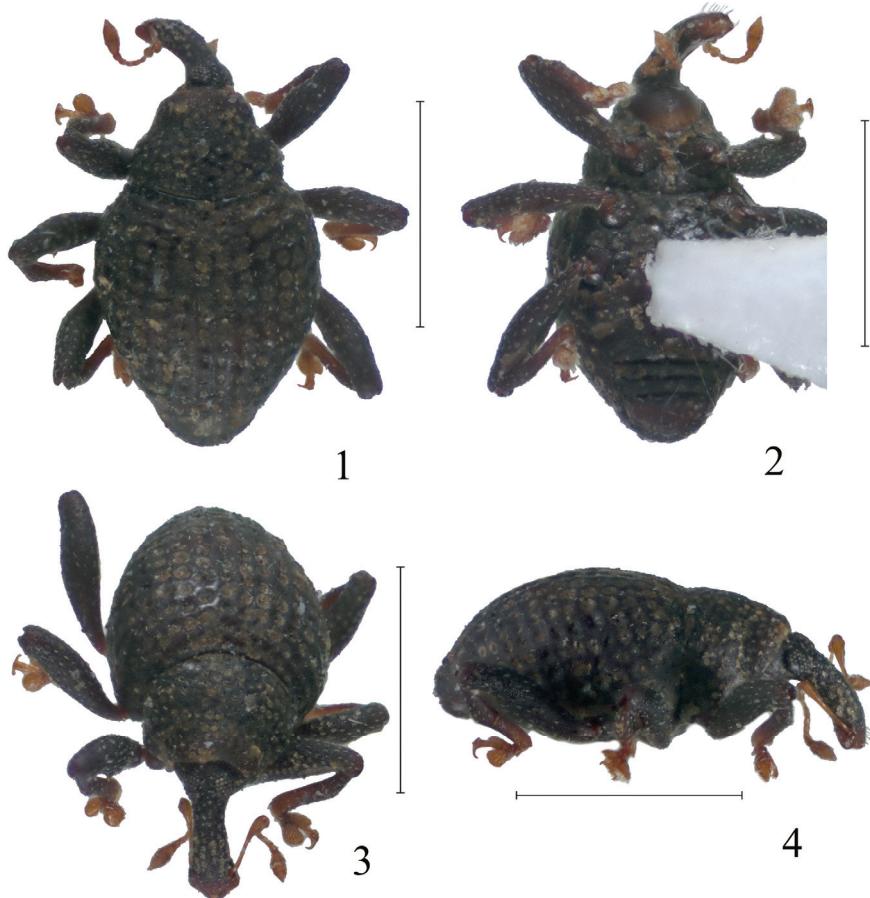
Genus *Orientogeochus* Legalov, gen. n.

<http://zoobank.org/NomenclaturalActs/99998D2D-D9CF-49CB-85FD-485330F0AF85>

Type species: *Orientogeochus rheinheimeri* sp. n., here designated.

DIAGNOSIS. Rostrum shorter than pronotum, almost three times as long as base, widened to apex. Mandibles almost straight at outer edge. Eyes rounded, coarsely

faceted, protruding from contour of head. Forehead quite narrow. Antennal scrobes dorsally. Antennae long, inserted at apical third of rostrum. Antennomere 1 long, not reaching eyes. Antennal club compact. Scutellum absent. Humeri smooth. Interstriae narrower than wide of elytral striae. Pre- and postcoxal portions of prosternum short. Precoxal portion shorter than postcoxal portion. Procoxal cavities widely separated. Metaventrite flat, very short. Abdomen flattened. Ventrites 1 and 2 long. Ventrite 1 shorter than length of metacoxal cavity. Ventrite 2 distinctly longer than ventrite 1. Ventrites 3 and 4 short. Ventrite 5 long. Procoxae subconical. Meso- and metacoxae subspherical. Femora with large teeth on middle. Tibiae curved at basal fourth, without uncus and mucro. Tarsomere 3 wide-bilobed. Tarsomere 5 elongate. Tarsal claws free, strongly divergent, without teeth.



Figs 1–4. *Orientogeochus rheinheimeri* sp. n., holotype female, habitus. 1 – dorsal view; 2 – ventral view; 3 – frontal view; 4 – lateral view. Scale bar 1.0 mm.

COMPARISON. The new genus is similar to the African genus *Afrogeochus* but differs in the toothed femora, rounded eyes, widely separated procoxal cavities, subapically inserted antennae and rostrum almost three times as long as the base, widened at the apex.

ETYMOLOGY. Generic name from “Orientalium” and “Geochus”.

COMPOSITION. Type species.

***Orientogeochus rheinheimeri* Legalov, sp. n.**

<http://zoobank.org/NomenclaturalActs/5972311e-7974-4502-b45f-9cb80eef07d9>

Figs 1–4

TYPE MATERIAL. Holotype – ♀, **the Philippines:** Luzon, Sierra Madre Mtr., Quirino Prov., XI 2015, local collector (ISEA).

DESCRIPTION. FEMALE. Body length (without rostrum) 1.7 mm. Rostrum length 0.5 mm. Body black, glabrous. Antennae and tarsi red-brown. Rostrum long, curved, widened to apex, 1.8 times as long as wide at apex, 2.5 times as long as wide in middle and 3.0 times as long as wide at base, 0.8 times as long as pronotum, flattened at apex, finely and densely punctuate, with sparse and large punctuation. Back of rostrum without carina. Mandibles large, almost straight at outer edge. Eyes large, rounded, coarsely faceted, protruding from contour of head. Forehead flat, quite narrow, 0.4 times as long as rostrum base width. Antennal scrobes dorsally, visible dorso-laterally at apex. Antennae long, inserted at apical third of rostrum, dorso-laterally. Antennomere 1 long, not reaching eyes, 7.6 times as long as wide at apex. Antennomeres 2 and 3 suboval. Antennomere 2 1.9 times as long as wide, 0.2 times as long as and 0.7 times as narrow as antennomere 1. Antennomere 3 2.9 times as long as wide, 0.8 times as long as and 0.5 times as narrow as antennomere 2. Antennomeres 4–6 short-oval. Antennomere 4 2.0 times as long as wide, 0.9 times as long as and 1.3 times as narrow as antennomere 3. Antennomere 5 1.7 times as long as wide, slightly shorter and wider than antennomere 4. Antennomere 6 1.9 times as long as wide, 1.1 times as long as and equal in wide to antennomere 5. Antennomere 7 1.9 times as long as wide, 1.2 times as long as and 1.2 times as narrow as antennomere 6. Antennal club compact, 2.1 times as long as wide in middle, 0.5 times as long as flagellum, tomentose. Pronotum bell-shaped, 1.3 times as long as wide at apex, 0.9 times as long as wide in middle, 0.7 times as long as wide at base. Anterior collar present. Disk convex, densely punctate. Distances between punctuation subequal to diameter of them, shiny. Scutellum absent. Elytra 1.4 times as long as wide at base, 1.2 times as long as wide in middle, 2.4 times as long as wide at apex, 2.2 times as long as pronotum, narrowed to apical fourth. Humeri smooth. Elytral striae distinct, with large punctuation. Interstriae narrower than wide of elytral striae. Prosternum without postocular lobes. Pre- and postcoxal portions of prosternum short. Precoxal portion about 0.2 times as long as length of procoxal cavity. Postcoxal portion 2.0 times as long as precoxal portion. Procoxal cavities distinctly separated. Mesocoxal cavities widely separated. Metaventrite flat,

densely punctate, 0.5 times as long as length of metacoxal cavity. Abdomen flattened, finely puncate. Ventrites 1 and 2 long. Ventrite 1 0.8 times as long as length of metacoxal cavity. Ventrite 2 1.6 times as long as ventrite 1. Ventrites 3 and 4 short. Ventrite 3 0.3 times as long as ventrite 2. Ventrite 4 1.1 times as long as ventrite 3. Ventrite 5 2.5 times as long as ventrite 4, without anal setae. Procoxae large, subconical. Meso- and metacoxae subspherical. Femora and tibiae densely punctate. Femora thickened, with large teeth on middle. Tibiae curved at basal fourth, without uncus and mucro. Tarsi quite wide. Tarsomere 1 conical. Tarsomere 2 wide-conical, wider and shorter than tarsomere 1. Tarsomere 3 wide-bilobed, with pulvilli on lower surface. Tarsomere 5 elongate. Tarsal claws free, strongly divergent, without teeth.

DISTRIBUTION. The Philippines: Luzon (Fig. 5).

ETYMOLOGY. The species is named in honor of Joachim Rheinheimer (Ludwigshafen), who studied this group.

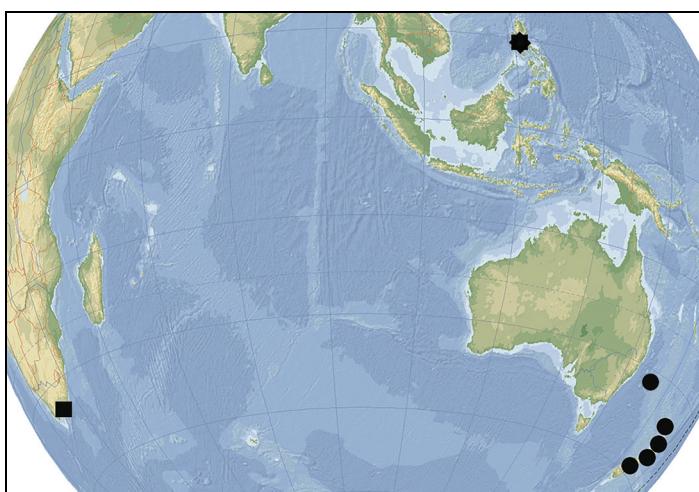


Fig. 5. Distribution of the subtribe Geochina: octagon – *Orientogeochus rheinheimeri*, circle – *Geochus* spp., square – *Afrogeochus franzi*.

REFERENCES

- Alonso-Zarazaga, M.A. & Lyal, C.H.C. 1999. *A world catalogue of families and genera of Curculionoidea (Insecta: Coleoptera) (excepting Scolytidae and Platypodidae)*. Entomopraxis. 315 pp.
- Broun, T. 1880. *Manual of the New Zealand Coleoptera*. Colonial Museum & Geological Survey Department. Wellington. I-XIX + 651 pp.
- Lawrence, J.F., Beutel, R.G., Leschen, R.A.B. & Slipinsky, S.A. 2010. Chapter 2. Glossary of Morphological Terms. P. 9–20. In: *Handbook of Zoology. Arthropoda: Insecta. Tb. 40: Coleoptera (Beetles). Vol. 2: Morphology and Systematic (Elateroidea, Bostrichiformia, Cucujiformia partim)*. Walter de Gruyter, Berlin, New York. 786 pp.

- Legalov, A.A. 2020. Annotated key to weevils of the world. Part 4. Subfamilies Erirhininae, Dryophthorinae and Cossoninae (Curculionidae). *Ukrainian Journal of Ecology*, 10(2): 319–331.
- Lyal, C.H.C. 2014. 3.7.7. Molytinae Schoenherr, 1823. Arthropoda: Insecta. P. 529–569. In: *Handbook of Zoology. Tb. 40: Coleoptera (Beetles). Vol. 3: Morphology and Systematics (Phytophaga)*. Walter de Gruyter, Berlin, Boston. 675 pp.
- May, B.M. 1992. *Geochus* Broun, 1882: An enigmatic genus now known to be a leafminer (Curculionidae: Curculionini). *New Zealand Entomologist*, 15(1): 22–25. DOI: <http://dx.doi.org/10.1080/00779962.1992.9722623>
- Rheinheimer, J. 1998. *Afrogeochus*, eine neue Rüsselkäfer-Gattung aus Südafrika (Coleoptera: Curculionidae). *Koleopterologische Rundschau*, 68: 253–256.
- Zimmerman, E.C. 1994. *Australian weevils (Coleoptera: Curculionoidea)*. Vol. 1. *Orthoceri. Anthribidae to Attelabidae. The primitive weevils*. CSIRO Australia, Melbourne. xxxii + 741 pp.